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10/751,410	01/06/2004	Jong Yeul Suh	0465-1130P	3175
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EXAMINER KHAN, ASHER R				
ART UNIT 2621		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/751,410

Applicant(s)

SUH, JONG YEUL

Examiner

ASHER KHAN

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-21, 23, 24 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-21, 23, 24 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/8/2009 have been fully considered but they are not persuasive.

In re page 11, lines 12-15, Applicants argue with respect to Thiagarajan et al. does not teach maintaining the identifying information of broadcasting programs other than a single broadcasting program and recording the single broadcasting program if the user requests recording of more than one broadcasting programs at a same time.

In response the examiner respectfully disagrees. Thiagarajan discloses maintaining the identifying information of broadcasting programs (0049; maintaining of program recording completion events) other than a single broadcasting program if the user requests recording of more than one broadcasting programs at a same time (System may have more then one tuners thus it can record more then one program at the same time; 0037)

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 3, 6-9, 12-15, 19-21, 23-24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. 2007/0031111 to Thiagarajan et al. "Thiagarajan" and in view of U.S. Patent 5,737,477 to Tsutsumi.**

As to claims 1 and 14, Thiagarajan discloses recording system for recording a broadcasting program (Fig. 1) comprising:

- a channel demodulating part configured to receive and demodulate the broadcasting program on a particular channel (Tuner 306; 0031;0037);
- a storage medium configured to store the broadcasting program (0038);
- a controller configured to initialize identifying information (0048-0049; configuration of program recording completion event) for identifying a success of recording of the broadcasting program intended to record in response to a recording command signal (0014;0048-0054), control to maintain identifying information of broadcasting programs (0049; maintaining of program recording completion events) other than a single broadcasting program and record the single broadcasting program in the storage medium (no interruption and completion of a scheduled program recording;0060) if the user requests recording of more than one broadcasting programs at a same time (System may have more then one tuners thus it can record more then one program at the same time; 0037) if the recording of the single broadcasting program is successful (completion of recording because of program recording completion event due to incomplete recording, 0062); and a recording processing part configured to store the identifying information (0050; storing of program recording completion events), to identify the identifying information (program recording completion events) of the broadcasting programs, and request re-transmission of the broadcasting programs program intended to record through a network when the identification information of

broadcasting programs is not changed (0014;0047;0049-0050; information to complete a incomplete program recording of a program, 0049)

Thiagarajan does not expressly disclose to change the identifying information of the single broadcasting program.

Tsutsumi discloses to change the identifying information of the single broadcasting program (Col. 4, lines 30-41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Motivation to combine would have been to provide an indication so that is provided such that there is change in the identifying information. Therefore clearly identifying the completion of a recoding event.

As to claim 3, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the storage medium is a hard disc (0015).

As to claims 6 and 19, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the controller is further configured to initialize the identifying information (0048-0049; configuration of program recording completion event) and the recording of the broadcasting program intended to record is successful (Fig. 5;0049) and if the recording of the broadcasting program intended to record fails (Fig. 5;0060). However Thiagarajan and Tsutsumi do not expressly disclose a recording flag value at the recording processing part to a first identifying information value in response to the recording command signal, to set the

first identifying information value to a second identifying information value, and controls to maintain the first identifying value as it is.

Tsutsumi discloses a recording flag value at the recording processing part to a first identifying information value in response to the recording command signal, to set the first identifying information value to a second identifying information value, and controls to maintain the first identifying value as it is (Col. 4, lines 30-41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 7, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Tsutsumi discloses wherein the upload/download controlling part is further configured to set the first identifying information value to '1', and to reset the second identifying information value to '0' (Col. 4, lines 30-41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 8, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the recording processing part includes: a recording parameter storage part configured to store the identifying information and information on the broadcasting program intended to record; and a network interface part configured to identify the identifying information, to request the re-transmission of the broadcasting program intended to record through the network when recording of the broadcasting program intended to record fails (Figs. 4 and 5; 0066-0074).

As to claim 9, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the recording parameter storage part is a ROM (read-only memory) (Fig. 3, non volatile memory 316; 0038).

As to claim 12, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses and wherein the network interface part is-includes at least one of a LAN Card (Fig. 2, Ethernet 218 (Ethernet is used with a LAN) and a MODEM (Fig. 3, MODEM 334).

As to claim 13, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the network interface part is further configured to be connected to a program server or a broadcasting station for communication (Fig. 1, Broadcast transmitter 130) (0021).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one

skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 15, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the user's recording setting information is information related to at least one of a recording operation, a scheduled recording operation, and a time shift operation (Fig. 5, 502).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 20, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Tsutsumi discloses resetting the identifying information of the single broadcasting program to '0' if the recording is successful as a result of the determination (Col. 4, lines 30-41); and controlling to maintain the identifying information of the single broadcasting program to '1' if the recording fails (Col. 4, lines 30- 41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with

no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 21, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Tsutsumi discloses further comprising changing the identifying information of the single broadcasting program if there is a user's record stop request.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 23. Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses further comprising: transmitting the information on the broadcasting program having recording thereof failed to a program server or a broadcasting station (0066; Fig. 1 104, 136); and re-receiving the broadcasting program having recording thereof failed from the program server or the broadcasting station, and recording the broadcasting program having recording thereof failed, after the step of requesting re-transmission of the broadcasting programs (0066-0070).

As to claim 24, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the information on the

transmitted broadcasting program is a program ID for matching to the program (Fig. 4, 405).

As to claim 27, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses if recording of the broadcasting program fails as a result of the determination, renewing the information on the broadcasting program stored in the recording parameter storage part (0063-0070).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. 2007/0031111 to Thiagarajan et al. "Thiagarajan" and in view of U.S. Patent 5,737,477 to Tsutsumi and in further view of U.S. Patent Pub. 2002/0141451 A1 to Gates et al. ("Gates").

As to claim 2, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. In addition Thiagarajan discloses wherein the channel demodulating part includes;

a channel receiving part configured to tune to, and demodulate a broadcasting signal on a particular channel (Client device 108)(0037).

Thiagarajan and Tsutsumi as modified do not expressly disclose to forward in a form of a transport TP stream; and a TP processing part configured to split the TP stream from the channel receiving part into an audio PES stream, a video PES stream, and a data stream.

Gates discloses to forward in a form of a transport TP stream; and a TP processing part configured to split the TP stream from the channel receiving part into an audio PES stream, a video PES stream, and a data stream (0036).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine teachings of Thiagarajan and Tsutsumi as modified with the teaching of Gates. Motivation to combine would be to demultiplex the transport stream to reproduce it on reproducing medium (0036).

5. Claim 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al. ("Thiagarajan") in view of U.S. Patent 5,737,477 to Tsutsumi and in further view of U.S. Patent Pub. 2002/0021886 to Nakajima et al. (Nakajima).

As to claim 11 and 17, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. However Thiagarajan and Tsutsumi do not expressly disclose wherein the record starting time field, or the record end time field includes 4 bits of a month field, 5 bits of a day field, 5 bits of an hour field, and 6 bits of a minute field.

Nakajima discloses wherein the record starting time field, or the record end time field includes 4 bits of a month field, 5 bits of a day field, 5 bits of an hour field, and 6 bits of a minute field (0209).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of Thiagarajan and Tsutsumi as modified with the teaching of Nakajima. Motivation to combine the elements would have been to express the fields in to binary numbers for the reason to be able to integrate the system into a digital system.

6. Claim 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al. ("Thiagarajan") in view of

U.S. Patent in view of U.S. Patent 5,737,477 to Tsutsumi and in view of U.S. Patent Pub. 2002/0188945 A1 to McGee et al. ("McGee") and in further view of U.S. Patent Pub. 2004/0002987 A1 to Clancy et al. ("Clancy").

As to claims 10 and 16, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. Thiagarajan further discloses wherein the recording parameter storage part includes one bit of an identifying information field (unique id 405), 20 bits of a record starting time field (broadcast start time 412), and 7 bits of a channel information field (channel number 410) (Fig 4, Program composite key 404). Thiagarajan and Tsutsumi as modified do not expressly disclose a record end time field and number of bits to be used in each field.

McGee discloses a record end time field (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and Thiagarajan and Tsutsumi as modified with the Teaching of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

Clancy discloses that EPG data may be in any binary format i.e. number of bits (0080).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of Thiagarajan, Tsutsumi and McGee as modified with

the teachings of Clancy. Motivation to combine would have been to express the EPG data in binary to for facilitating storage and/or compression of data (0080), so the system is able to store more information and process the information faster.

7. Claim 18, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al. ("Thiagarajan") in view of U.S. Patent in view of U.S. Patent 5,737,477 to Tsutsumi and in view of U.S. Patent Pub. 2002/0188945 A1 to McGee et al. ("McGee").

As to claim 18, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. Thiagarajan further the information on the broadcasting program includes channel information, a record starting time, and a record end time of the recording program, and the record starting time is a starting time of the program intended to record in a case of the scheduled recording, and a time when a recording/time shift button is pressed in a case of direct recording or a time shift operation (0019)(0058). Thiagarajan and Tsutsumi as modified do not expressly disclose a record end time.

McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and combine Thiagarajan and Tsutsumi as modified with the teachings of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic

program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

As to claim 28, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. Thiagarajan further discloses wherein the step of renewing the information on the broadcasting program stored in the recording parameter storage part further includes;

re-receiving program related information from the program server or the broadcasting station(0066); and
overwriting the program related information on a relevant position of the recording parameter storage part, and scheduling writing of the program automatically by using stored record starting time and record end time (Inherent in 0066).
Thiagarajan and Tsutsumi as modified do not expressly disclose record end time.
McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

As to claim 29, Thiagarajan and Tsutsumi disclose everything claimed as applied in claim 1 above. Thiagarajan further discloses wherein the overwritten program

related information includes channel information, a record starting time of a recording program(0050)(0066).

Thiagarajan and Tsutsumi as modified do not expressly disclose a record end time.

McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and Thiagarajan with the Teaching of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHER KHAN whose telephone number is (571)270-5203. The examiner can normally be reached on 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks- Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/A. K./
Examiner, Art Unit 2621